Amendments to the Claims

1-31. canceled

32. (currently amended) A breathing mask for monitoring a patient during gas delivery comprising:

a body having an internal surface, an external surface, and a perimeter surface shaped to form a seal around the patient's nose ~~and mouth~~; and

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon ~~extended from the mask and positioned~~ to detect brain activity.

33-56. canceled

57. (currently amended) The breathing mask of claim 32, wherein the headgear is a cap ~~perimeter surface is adapted to detect muscle activity~~.

58. (previously presented) The breathing mask of claim 32, wherein the perimeter surface is adapted to detect ECG.

59. (previously presented) The breathing mask of claim 32, and further comprising a flow sensor connected to the internal surface.

60. (previously presented) The breathing mask of claim 32, and further comprising an oxygen saturation sensor extended from the mask.

61. (currently amended) The breathing mask of claim 32, wherein the perimeter surface is adapted to detect muscle ~~eye~~ movements.

62. (currently amended) A nasal ventilation mask comprising:

a body having an internal surface, an external surface, and a perimeter surface adapted to form seal around a patient's nose,

an airhose extending from the body;

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon to detect brain activity; and

at least one EMG sensor connected to the body and positioned to detect muscle activity relating to a sleep state.

63. (previously presented) The mask of claim 62, and further comprising a first sensor positioned on the internal surface for detecting nasal breathing and a second sensor positioned on the external surface for detecting oral breathing.

64. (previously presented) The mask of claim 63, wherein the first and second sensors are thermal sensors.

65. (previously presented) The mask of claim 62, and further comprising at least one EEG sensor positioned on the perimeter surface.

66. (previously presented) The mask of claim 62, and further comprising at least one EOG sensor positioned on the perimeter surface.

67. (previously presented) The mask of claim 62, wherein a portion of the perimeter surface is comprised of a conductive carbonized rubber material.

68. (previously presented) The mask of claim 62, and further comprising a plurality of straps coupled to the body, the straps having at least one sensor positioned thereon.

69. (previously presented) The mask of claim 62, and further comprising a position sensor coupled to the body.

70. (previously presented) The mask of claim 62, and further comprising a microphone coupled to the body.

71. (previously presented) The mask of claim 62, wherein the perimeter surface is adapted to sense air leaks.

72. (previously presented) The mask of claim 62, and further comprising a patient recycled air detection system positioned on the internal surface.

73. (currently amended) A nasal ventilation mask assembly comprising:

a nasal mask adapted to form a seal around a patient's nose; and

a headgear adapted to retain the body on the patient's head, the headgear having an EEG sensor ~~coupled to the mask~~ positioned thereon ~~so as to be positioned on a~~ to contact a patient's forehead upon application of the nasal mask.

74. (currently amended) The mask of claim 73 and further comprising a computer in communication with the sensor ~~sensors~~, the computer adapted to determine arousal.

75. (currently amended) The mask of claim 73 and further comprising a computer in communication with the sensor ~~sensors~~, the computer adapted to determine sleep state.

76. (previously presented) The mask of claim 73 and further comprising an EMG sensor coupled to the nasal mask.

77. (currently amended) A breathing mask for monitoring a patient during gas delivery comprising:

a body having an internal surface, an external surface, and a perimeter surface shaped to form a seal around the patient's nose and mouth; and

a headgear adapted to retain the body on the patient's head, the headgear having at least one EEG sensor positioned thereon ~~coupled to the body~~ so as to be positioned on a top portion of a patient's head ~~upon application of the body to a patient~~.

78. canceled